



Entergy Operations, Inc.
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David B. Bice
Acting Manager, Licensing
Arkansas Nuclear One

1CAN040901

April 1, 2009

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

Subject: Licensee Event Report 50-313/2009-002-00
Arkansas Nuclear One – Unit 1
Docket Nos. 50-313
License Nos. DPR-51

Dear Sir or Madam:

In accordance with 10CFR50.73(a)(2)(iv)(A), enclosed is the subject report concerning a manual reactor trip from power.

New commitments contained in this submittal are documented in the attachment.

Sincerely,

A handwritten signature in black ink, appearing to be "DBB", with a long, sweeping horizontal stroke extending to the right.

DBB/rs
Attachment

cc: Mr. Elmo Collins
Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV
612 E. Lamar Blvd., Suite 400
Arlington, TX 76011-4125

NRC Senior Resident Inspector
Arkansas Nuclear One
P.O. Box 310
London, AR 72847

Institute of Nuclear Power Operations
700 Galleria Parkway
Atlanta, GA 30339-5957
LEREvents@inpo.org

NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION (9-2007)				APPROVED BY OMB NO. 3150-0104 EXPIRES 8/31/2010 Estimated burden per response to comply with this mandatory information collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503. If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.																																							
LICENSEE EVENT REPORT (LER) (See reverse for required number of digits/characters for each block)																																											
1. FACILITY NAME Arkansas Nuclear One				2. DOCKET NUMBER 05000313		3. PAGE 1 OF 4																																					
4. TITLE Manual Reactor Trip From Power in Response to a Fire at the Main Generator Hydrogen Addition Station Caused by a Personnel Error																																											
5. EVENT DATE <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>MONTH</th> <th>DAY</th> <th>YEAR</th> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">7</td> <td style="text-align: center;">2009</td> </tr> </table>			MONTH	DAY	YEAR	2	7	2009	6. LER NUMBER <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>YEAR</th> <th>SEQUENCE NUMBER</th> <th>REV. NO.</th> </tr> <tr> <td style="text-align: center;">2009</td> <td style="text-align: center;">002</td> <td style="text-align: center;">00</td> </tr> </table>		YEAR	SEQUENCE NUMBER	REV. NO.	2009	002	00	7. REPORT DATE <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>MONTH</th> <th>DAY</th> <th>YEAR</th> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">01</td> <td style="text-align: center;">2009</td> </tr> </table>		MONTH	DAY	YEAR	4	01	2009	8. OTHER FACILITIES INVOLVED <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>FACILITY NAME</th> <th>DOCKET NUMBER</th> </tr> <tr> <td></td> <td style="text-align: center;">05000</td> </tr> <tr> <th>FACILITY NAME</th> <th>DOCKET NUMBER</th> </tr> <tr> <td></td> <td style="text-align: center;">05000</td> </tr> </table>		FACILITY NAME	DOCKET NUMBER		05000	FACILITY NAME	DOCKET NUMBER		05000									
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13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT																																											
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14. SUPPLEMENTAL REPORT EXPECTED <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO					15. EXPECTED			MONTH	DAY	YEAR																																	
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)																																											
<p>On February 7, 2009, at approximately 1046 CST, the reactor was manually tripped from 90 percent power in response to a report of a fire at the main generator hydrogen addition station. Prior to the occurrence of the fire, Operations personnel were preparing to add hydrogen to the main generator. The Inside Auxiliary Operator (IAO) who was to perform the task conducted a pre-job brief with the Shift Technical Advisor, who was also a qualified Shift Manager. The IAO then proceeded to the hydrogen addition station to perform the task. The procedure requires that the hydrogen station to generator inlet isolation valve, which is a normally open valve, be verified open. The IAO first attempted to open the valve with no success, then unsuccessfully attempted to close the valve. Assuming the valve was stuck on its closed seat; the operator obtained a pipe wrench and proceeded to rotate the valve handle in the open direction. Suddenly, the bonnet, hand wheel, and valve internals assembly ejected from the valve body, releasing hydrogen under pressure to the atmosphere. The operator immediately exited the area and the hydrogen quickly ignited. Operations personnel expeditiously initiated action to isolate the hydrogen leak. As a conservative action, the reactor was manually tripped at 1046 CST. The cause of this event was personnel error. The involved individual will receive remedial training and go through a requalification process.</p>																																											

(9-2007)

LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE		
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NARRATIVE

A. Plant Status

At the time of this event, Arkansas Nuclear One, Unit 1 (ANO-1) was at approximately 90 percent power following restart from a forced outage. Preparations for a nuclear instrumentation calibration were in progress.

B. Event Description

On February 7, 2009, at approximately 1046 CST, the reactor was manually tripped from 90 percent power in response to a report of a fire at the main generator hydrogen addition station.

Prior to the occurrence of the fire, Operations personnel were preparing to add hydrogen to the main generator. The Inside Auxiliary Operator (IAO) who was to perform the task conducted a pre-job brief with the Shift Technical Advisor, who was also a qualified Shift Manager. Topics discussed during the brief were the procedure, basic steps and associated limits.

The IAO, with procedure in hand, then proceeded to the hydrogen addition station on elevation 354' of the Turbine Building, to perform the task. In the process of aligning hydrogen to the generator, the procedure requires that the hydrogen station to generator inlet isolation valve (H₂-109), which is a normally open valve, be verified open. The IAO first attempted to open the valve using both hands with no success. The IAO then unsuccessfully attempted to close the valve using both hands. Assuming the valve was stuck on its closed seat, the IAO obtained a pipe wrench and proceeded to rotate the valve handle in the open direction approximately six turns. Because the valve was actually on its open seat, this action resulted in the valve bonnet unscrewing from the valve body. Suddenly, the bonnet, hand wheel, and valve internals assembly ejected from the valve body, releasing hydrogen under pressure to the atmosphere. The IAO immediately exited the area and the hydrogen quickly ignited. Upon being notified of the hydrogen leak and associated fire, Operations personnel quickly initiated action to isolate the hydrogen leak from the Hydrogen Bulk Storage Facility. As a conservative action, the reactor was manually tripped at 1046 CST. The fire was reported extinguished at 1055; however, at 1057, the Control Room was notified that a re-flash had occurred in the cable tray located above the hydrogen addition station. Upon receiving this report, a Notification of Unusual Event (NUE) was declared at 1059 based on a fire within the protected area that was not extinguished within 10 minutes. The fire was quickly extinguished and a re-flash watch was posted. The NUE was terminated at 1238 CST.

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**LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET**

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE		
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NARRATIVE**C. Root Cause**

The root cause of this event was determined to be personnel error. The IAO mistakenly assumed that H₂-109 was stuck on its closed seat and proceeded to attempt to open the valve using a Torque Amplifying Device (TAD) without first requesting prior supervisor approval to use such a device, as required by procedure. In addition, the IAO did not apply acquired skills and abilities to the task.

D. Corrective Actions

Immediate corrective actions taken with respect to this event included:

- The IAO was removed from shift.
- Stand Down meetings were conducted with Operations Department personnel regarding this event.

In addition, remediation training and requalification will be provided for the IAO involved with this event.

E. Safety Significance

Operations personnel responded quickly and appropriately to the hydrogen fire by expeditiously isolating the hydrogen supply and extinguishing the fire. In addition, a conservative decision to manually trip the reactor was made. All systems performed as designed during and after the plant trip. Main steam safety valves lifted as expected following the plant trip from 90 percent power and subsequently reseated, as designed.

Considering the expeditious and appropriate actions taken by the operators to minimize the consequences of this event, the actual safety significance is considered to be minimal.

NRC FORM 366A (9-2007)		U.S. NUCLEAR REGULATORY COMMISSION			
LICENSEE EVENT REPORT (LER) CONTINUATION SHEET					
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NARRATIVE**F. Basis for Reportability**

The NUE and manual reactor trip were reported to the NRC Operations Center at 1118 CST on February 7, 2009. An update notification reporting the termination of the NUE was made at 1238 CST on February 7, 2009.

A manual reactor trip from power is reportable pursuant to 10CFR50.73(a)(2)(iv)(A).

G. Additional Information

There have been no previous similar events in which a fire resulted in a reactor trip reported as LERs at ANO.

Attachment

1CAN040901

List of Regulatory Commitments

List of Regulatory Commitments

The following table identifies those actions committed to by Entergy in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments.

COMMITMENT	TYPE (Check One)		SCHEDULED COMPLETION DATE (If Required)
	ONE TIME ACTION	CONTINUING COMPLIANCE	
Remediation training and requalification will be provided for the IAO involved with this event	X		5/5/2009